Index to Volume XXIII, 1901.

ABSORPTION figures of various oils, a comparison between the bromine and iodine 156
Acetophenone, α-oxybenzylidene 789
Acetylene and ethylene, comparison of their solubility 671
Adipic acid, derivatives of ββ-dimethyl and αββ-trimethyl 392
Alloys made in the electric furnace 151
Ammonia and chlorine, reaction between 460
Antimony, determination by the blowpipe, 213; atomic weight of 502
Apple and some of its products, analysis of the 869
Applied chemistry, fourth international congress of (review) 178
Arsenates, test for, in blowpipe analysis 214
Arsenious oxide in Paris green, soluble 111
Ash of plants, loss of sulphur in preparing (note) 199
Asphalts, comparative method for determining the fusion points of 32
Atomic weights, eighth annual report of committee on 90
AUCHY, GEORGE. Determination of sulphur in wrought iron and steel, 147; Note on the determination of silicon in steel 817
AVERY, S., and H. T. Beans. Soluble arsenious oxide in Paris green, 111; A rapid method for the determination of arsenious oxide in Paris green 485

BASKERVILLE, CHARLES. On the existence of a new element associated with thorium, 761; Some hydrochlorated sulphates 894
BEANS, H. T. See Avery, S.
Beets, notes on sugar 216
BEMENT, A. Improvement in Orsat apparatus 57
BENEKER, JAY C. See Ellms, Joseph W.
BIGELOW, W. D. See Tolman, L. M.
BLASDALE, W. C. On heptane from coniferous trees 162
Blowpipe analysis, use of metallic sodium in, 159; Measurement of gold and silver buttons in, 203; Determination of water, 213; Behavior of antimony in the open tube, 213; Phosphorus, flame test for, 213; Boron, flame test for, 213; Use of borax in reduction of metals, 214; Test for fluorine, 214; Test for arsenates, 214; Test for silica 215
BOGERT, MARSTON TAYLOR, and Leopold Boroschek. Some experiments with the mononitroorthophthalic acids 740
BOLLING, RANDOLPH. Modified Williams' method for manganese 493
Books received 68, 202, 361, 439, 610, 774
Boron, detection of boron in blowpipe analysis by flame test 214
BOROSCHEK, LEOPOLD. See Bogert, Marston Taylor.
Bromine and iodine absorption figures of various oils, a comparison between 156
BROWN, O. W. See Dennis, L. M.
BROWNE, C. A., JR., and C. P. Beistle. The complete analysis of feeding materials, 229; The chemical analysis of the apple and some of its products 869
Burette calibrator, modified form of Ostwald's 482
BURK, W. E. Quantitative determination of fluorine in fluorides easily decomposable by sulphuric acid 824
Butter, simple test to distinguish oleomargarine from (note) 200

CAMPHOROXALIC acid derivatives 363
Carbon determination, special crucible for 227
Carbonic acid in water, estimation of 495
Carolinium, a new element 761

Catalysis in concentrated solutions 236
CAYVAN, L. L. See Woodman, A. G.
Chalcopyrite, experiments on 107
Chemical industries, condition, prospects, and future educational demands of the (president's address) 71
Chlorides of alkali metals, decomposition by sulphuric acid 820
Chlorine and ammonia, reaction between 460
CLARKE, F. W. Eighth annual report of the committee on atomic weights. Determinations published in 1900 90
COHEN, LILLIAN P. See Harding, Everhart P.
Colloids, precipitation by electrolytes 842
Combustion, heats of, in oils 164
Conductivity cell, convenient arrangement of the Kohlrausch-Ostwald 482
Copper, electrolytic separation from mercury 579
Corn oil, nature and properties of 1
CRAFTS, J. M. Catalysis in concentrated solutions 236
CRAIG, A. G. On the determination of formaldehyde 638
Crucible for carbon determinations 227
CUSHMAN, ALLERTON S. Note on some modified forms of physico-chemical measuring apparatus 482

DAVIS, CHARLES B. On the elimination and quantitative estimation of water in oils, fats, and waxes 487
Decinormal nitric and hydrochloric acids, method for preparing 343
DENNIS, L. M., and O. W. Brown. Potassium perselenate, preliminary note 358
Dimethylbenzaldehyde, 2,5 594
Dissociation of tri-ionic salts 37

ELECTRIC furnace for laboratory use, an improved 473
Electrical conductivity of tin salts 21
ELLMS, JOSEPH W., and Jay C. Beneker. The estimation of carbonic acid in water 405
Enzymes, the chemical nature of 505
Ethyl alcohol and water, boiling-point curve for mixtures of 463
Ethylene and acetylene, a comparison of their solubility 671
Eucaine, identification and properties of α- and β- 885
EWELL, E. E. Notes on the paper by Hiltner and Thatcher (note) 432
Explosives, notes on analysis of 585

FAT, an apparatus for determining, 338; in sweetened condensed milk, estimation of 64
Feeding materials, complete analysis of 229
Filter washer, an automatic 589
Fluorine, detection in blowpipe analysis 214
Fluorine in fluorides easily decomposable by sulphuric acid, quantitative determination of 824
Formaldehyde, determination of 638
Formaldehyde in milk, a modification of the sulphuric acid test for 682
FRAPS, G. S. Loss of sulphur in preparing ash of plants (note), 199; See also Withers, W. A.
FRIEND, G. CLAUSEN and Edgar F. Smith. The atomic weight of antimony 502
FULWEILER, W. H., and Edgar F. Smith. The precipitation and separation of silver in the electrolytic way 582

GAS analysis, improvement in Orsat's apparatus, 57; Estimation of sulphur in illuminating gas, 173; On nitrometer work (note), 267; Determination of hydrogen in gas mixtures 354
GIBSON, HARRIET WINFIELD. See Vulté, Hermann T.
Gold and silver buttons, measurement of, in blowpipe analysis 203
GOMBERG, M. On triphenylchlormethane, 109; On trivalent carbon 496
GOMBERG, M., and O. W. Voedisch. On tritolylchlormethane 177
GOTTHELF, AUGUST HENRY. The synthesis of alkyl ketodihydroquinazolins from anthranilic acid 611
Grinder, power laboratory ore (note) 198

Guncotton and smokeless powder, determination of soluble nitrocellulose in..... 258
Gunpowder, determination of soluble nitrocellulose in 258

HALOGEN ions, positive and negative 796
HAMILTON, LEWIS P., and Edgar F. Smith. Alloys made in the electric furnace..... 151
HARDING, EVERHART PERCY. The reduction in an alkaline solution of 2,4,5-trimethylbenzalazine and the preparation of some derivatives of the reduction products 829
HARDING, EVERHART P., and Lillian Cohen. Preparation of 2,5-dimethylbenzaldehyde: The establishment of its constitution and preparation of some of its derivatives..... 594
HARTWELL, B. L. See Wheeler, H. J.
Heats of combustion of commercial oils 164
HELMER, L. LESLIE. See Noyes, William A.
Heptane from coniferous trees, on..... 162
HILTNER, R. S., and R. W. Thatcher. An improved method for the rapid estimation of sugar in beets..... 299, 432, 863
HOPKINS, CYRIL G. Methods of standardizing acid solutions..... 727
HOSCH, GEORGE E. A gravimetric method for the estimation of hydrogen dioxide... 923
HOWE, JAMES LEWIS. Contributions to the study of ruthenium, IV—The chlorides.. 775
HYDE, FREDERIC S. Estimation of fat in sweetened condensed milk (note)..... 64
Hydrochloric acid method for preparing decinormal..... 343
Hydrogen and methane, oxidation of nitrogen, a source of error in estimation of..... 476
Hydrogen dioxide, gravimetric method for estimating..... 923
Hydrogen in gas mixtures, determination of..... 354
Hydrogen sulphide, quantitative estimation in illuminating gas..... 173

INDICATOR for determining total acidity of wines, new 402
Indirect weighing of precipitates..... 644
Isothiocyanates, reactions with thiol acids..... 283

JACKSON, D. D. The photometric determination of sulphates..... 799
Jams and jellies, composition of 347

KERN, EDWARD F. The quantitative separation and determination of uranium 685
Ketodihydroquinazolins from anthranilic acid, synthesis of alkyl..... 611
KOLLOCK, LILY GAVIT and Edgar F. Smith. The electrolytic method applied to uranium, 607; The electrolytic determination of molybdenum..... 669

LACHMAN, ARTHUR. The action of zinc ethyl upon nitro and nitroso compounds, 897; A review of some recent progress in organic chemistry (review) .. . 902
Lead, sulphohalides of..... 680
LENHER, VICTOR. The sulphohalides of lead..... 680
LEVENE, P. A. Note on the analysis of nucleic acids obtained from different sources, 486; The chemical nature of enzymes..... 505
LOGAN, LILY. See Vulté, H. T.
LONG, J. H. On the estimation of urea in urine, 632; optical rotations of certain tartrates in glycerol 813
LUEBERT, A. GUSTAV. A modification of the sulphuric acid test for formaldehyde in milk 682
LUNGE, G. Researches on nitrocellulose..... 527
LYON, ALBERT C. See Noyes, William A.

MANGANESE, modified Williams' method for 493
MABERY, CHARLES F. Composition of Texas petroleum..... 264
MABERY, CHARLES F., and Otto J. Sieplein. A comparative method for determining the fusing-points of asphalts..... 32
MCMURTRIE, WM. The condition, prospects, and future educational demands of the chemical industries (president's address) 71
MEADE, RICHARD K. A method of preparing normal, seminormal, decinormal, etc., sulphuric acid of exact strength; Method for preparing strictly tenth-normal, fifth-normal, etc., hydrochloric or nitric acid..... 343
Mercury, electrolytic separation from copper 579
MERRIAM, HENRY F. See Wheeler, H. L.

Methane and hydrogen, oxidation of nitrogen a source of error in estimation of..... 476
Methyl sulphide, compounds with metallic halides 250
METZGER, F. J. See Wells, Henry L.
Milk, estimation of fat in sweetened condensed.. 64
Molybdenum, electrolytic determination of..... 669
Mononitroorthophthalic acids, some experiments with the 740
MOODY, HERBERT R. See Tucker, Samuel Auchmuty.
MOORE, B. L. See Pond, F. J.
MORGAN, LEONARD P., and Edgar F. Smith. Experiments on chalcopyrite..... 107
Morphine, extraction with immiscible solvents 470
MUNSON, L. S. See Tolman, L. M.
MURRAY, C. B. Power laboratory ore grinder (note)..... 198

NEW BOOKS: Victor Von Richter's Text-book of Inorganic Chemistry (E. F. Smith and W. T. Taggart), 65; The Elements of Physics (H. Crew), 66; L'Eau dans l'Industrie (H. de la Coux), 67; Grundzüge der Siderologie (H. F. von Juptner), 117; Lehrbuch der anorganischen Chemie (H. Erdmann), 118; A Text-book of Important Minerals and Rocks with Tables for the Determination of Minerals (S. E. Tillman), 268; Engineering Chemistry, second edition (T. B. Stillman), 269; A Manual of Assaying (A. S. Miller), 269; A School Chemistry (J. Waddell), 270; Elementary Organic Analysis (F. G. Benedict), 270; A Handbook of Industrial Organic Chemistry, 3rd edition (S. P. Sadtler), 271; Commercial Organic Analysis, Vol. III, Part I, (A. H. Allen), 272; Chemical Technology, Vol. III (Groves and Thorp), 273; A Text-book of Chemistry (Sadtler and Coblentz), 274; Laboratory Instructions in General Chemistry, (E. A. Congdon), 276; An introduction to Modern Scientific Chemistry (Lassar-Cohn and M. M. P. Muir), 276; Flesh Foods (C. A. Mitchell), 277; A Text-book of Urine Analysis (J. H. Long), 278; Inorganic Chemistry (O. Oldberg), 279; Handbook of Practical Hygiene (D. H. Bergey), 279; The Chemists' Pocket Manual (R. K. Meade), 280; Annuaire de L'Observatoire Municipal de Paris 1900, 281; Experimental Physics (E. Lommel), 281; Evolution of the Thermometer (H. C. Bolton), 282; The Chemical Analysis of Iron (A. A. Blair), 282; The Testing and Valuation of Raw Materials Used in Paint and Colour Manufacture (M. W. Jones), 436; Christian Friedrich Schönbein, 1799-1868 (Kahlbaum und Schaer), 437; The Elementary Principles of Chemistry (A. V. E. Young), 438; Atoms and Energies (D. A. Murray), 514; Quantitative Chemical Analysis (Clowes and Coleman), 515; The Manufacture of Lake Pigments from Artificial Colours (F. H. Jennison), 517; Glue and Glue Testing (S. Rideal), 518; Select Methods in Food Analysis (Leffmann and Beam), 518; Pure Air, Ozone, and Water (W. B. Cowell), 520; Experiments Arranged for Students in General Chemistry (Smith and Kellar), 520; Iron Corrosion; Anti-Fouling and Anti-Corrosive Paints (L. E. Andés), 521; Traité de la fabrication des liqueurs et de la distillation des alcohols (P. D. Ainé), 521; A Manual of Laboratory Physics (Tory and Pitcher), 523; Public Water Supplies (Turneaure and Russell), 524; The Mineral Industry, 1900 (Rothwell and Struthers), 525; An Elementary Treatise on Qualitative Chemical Analysis (J. F. Sellers), 526; Qualitative Analysis (Prescott and Johnson), 683; Jahrbuch des Vereins der Spiritusfabrikanten in Deutschland 924
Nitric acid, method for preparing decinormal, 343; Reactions in manufacture of..... 489
Nitrification of fertilizers, rate of..... 318
Nitrogen, oxidation of inorganic combustions causing error.. 476
Nitrogen in fertilizers, method for determining available organic.. 330
Nitrometer work (notes on) 267
Nitrocellulose, determination of soluble in smokeless powder and guncotton, 258; Researches on..... 527
Nitro and nitroso compounds, action of zinc ethyl upon..... 897
Nitroorthophthalic acids, some experiments with..... 740
NOYES, A. A. A modification of the usual method of determining transference numbers, and an investigation of the influence of the constitution on their values in the case of some triionic salts 37
NOYES, W. A. Synthesis of derivatives of dimethylcyclopentanone $\beta\beta$-dimethyladipic acid and $\alpha\beta\beta$-trimethyladipic acid..... 392

NOYES, WILLIAM A., and Albert C. Lyon. The reaction between chlorine and ammonia 460
NOYES, WILLIAM A., and L. Leslie Helmer. The determination of sulphur in iron and steel 675
NOYES, WILLIAM A., and R. R. Warfel. The boiling-point curve for mixtures of ethyl alcohol and water 463
Nucleic acids from different sources, analysis of 486

OBER, J. E. See Whitney, W. R.
Oil of corn, nature and properties of 1
Oils, a comparison between the bromine and iodine absorption figures of various, 156; On the heat of combustion as a factor in the analysis of, and the heats of combustion of some commercial 164
Oleomargarine from butter, simple test to distinguish (note) 200
Ore grinder, power laboratory (note) 198
Organic chemistry, recent progress in (review) 902
Orsat apparatus, improvement in 57

PARIS Green, soluble arsenious oxide in, 111; rapid method for determination of arsenious oxide in 485
PARSONS, CHARLES LATHROP. The use of metallic sodium in blowpipe analysis, 159; A simple test to distinguish oleomargarine from butter (note), 200; The identification and properties of *a*- and *β*-eucaine 885
Pentanone, derivatives of dimethylcyclo 392
Perselenate of potassium 358
Petroleum, composition of Texas 264
PHILLIPS, FRANCIS C. Compounds of methyl sulphide with halides of metals, 250; On the determination of hydrogen in gas mixtures 354
Phosphates in potable waters, determination of 96
Phosphoric acid, Kilgore's modification of the volumetric method of estimating 8
Phosphorus, detection by flame test in blowpipe analysis 213
PICKEL, J. M. An automatic filter washer 589
POND, F. J., H. J. York, and B. L. Moore. On α-oxybenzylidene acetophenone 789
Positive and negative halogen ions 796
Potassium perselenate 358
PUCKNER, W. A. The extraction of morphine with immiscible solvents 470

QUINAN, K. B. A new method for the estimation of soluble nitrocellulose in guncotton and smokeless powder 258

REVERSIBLE reactions, contributions to the knowledge of 508
Reviews: Proceedings of the third session of the international commission for uniform methods of sugar analysis held in Paris July 24, 1900 (F. G. Wiechmann, Sec'y), 59; The fourth international congress of applied chemistry (H. W. Wiley), 178; A review of some recent progress in organic chemistry (Arthur Lachman) 902
RICHARDS, JOSEPH W. The measurement of gold and silver buttons in quantitative blowpipe analysis, 203; Notes on some blowpipe tests 213
RUNYAN, E. G. A new indicator for use in determining total acidity of wines 402
Ruthenium chlorides 775

SHERMAN, H. C., and J. F. Snell. On the heat of combustion as a factor in the analytical examination of oils, and the heats of combustion of some commercial oils 164
SHEPARD, C. H. On nitrometer work (note) 267
SHIMER, PORTER W. A special crucible for carbon combustions 227
SIEPLEIN, OTTO J. See Mabery, Charles F.
Silica, test for, in blowpipe analysis 215
Silicic and tungstic acids, separation of 356
Silicon in steel, note on the determination of 817
Silver, electrolytic separation of 582
Silver buttons, measurement of gold and, in blowpipe analysis 203

SMITH, EDGAR F. See Friend, G. Clausen; Fulweiler, W. H.; Kollock, Lily Gavit; Morgan, Leonard P.; Hamilton, Lewis P.; Spare, C. Roscoe.
SMITH, F. W. Notes on the analysis of explosives 585
SNELL, J. F. See Sherman, H. C.
Sodium chloride, decomposition by sulphuric acid 820
Sodium in blowpipe analysis, use of metallic..... 159
SPARE, C. ROSCOE, and Edgar F. Smith. The electrolytic separation of mercury from copper..... 579
Standardizing acid solutions, methods of 727
Stannous salts, electrical conductivity of stannous chloride and hydrochloric acid, 21; oxidation of stannous chloride by means of free oxygen..... 119
STIEGLITZ, JULIUS. On positive and negative halogen ions..... 796
STULL, W. N. Contributions to the knowledge of reversible reactions..... 508
STREET, JOHN PHILLIPS. A method for the determination of the availability of organic nitrogen in commercial fertilizers..... 330
Sugar analysis, proceedings of the third session of the international commission for uniform methods of (review), 59; Methods of (note) 359
Sugar-beets, notes on..... 216
Sugar, determination in sugar-beet 216
Sugar in beets, improved method for rapid estimation of..... 299, 432, 863
Sulphates, photometric determination of, 799; some hydrochlorated..... 894
Sulphohalides of lead 680
Sulphur in wrought iron and steel, determination of..... 147
Sulphur in illuminating gas, estimation of 173
Sulphur in iron and steel, determination of 675
Sulphur in preparing ash of plants, loss of (note)..... 199
Sulphuric acid, method of preparing normal, decinormal, etc., of exact strength..... 12

TARTRATES in glycerol, optical rotations of certain..... 813
THATCHER, R. W. The indirect weighing of quantitative precipitates. A rapid and accurate method for determining the weight of a precipitate without separating it from the liquid from which it was precipitated, 644; See also Hiltner, R. S.
Thermostat, an electrically heated and controlled..... 327
Thio acids, some addition reactions of 443
Thiocyanates and isothiocyanates, reaction with thiol acids 283
Thioureaamidines, preparation of 223
Thorium, carolinium, a new element associated with 761
Tin salts, studies on electrical conductivity of, 21; oxidation of stannous salts by means of free oxygen, 119; studies on solutions of..... 453
TINGLE, J. BISHOP. Camphoroxalic acid derivatives, VI 360
Tolman, L. M., L. S. Munson, and W. D. Bigelow. The composition of jellies and jams 347
Transference numbers, modification of the usual method of determining, 37; Influence of the constitution of tri-ionic salts on..... 37
Trimethylbenzalazine, reduction in alkaline solution..... 829
Triphenylchlormethane..... 109
Tritolylchlormethane, on 177
Trivalent carbon, on..... 496
TROWBRIDGE, P. F. Notes on sugar-beets 216
TUCKER, SAMUEL AUCHMUTY, and Herbert R. Moody. Improved electric furnace for laboratory use, 473; a comparison of the solubility of acetylene and ethylene..... 671
Tungstic and silicic acids, separation of 356
TUTWILER, C. C. The quantitative estimation of hydrogen sulphide in illuminating gas..... 173

URANIUM, electrolytic method applied to, 607; quantitative separation and determination of..... 685
Urea in urine, determination of..... 632

VOLNEY, C. W. On the decomposition of sodium nitrate by sulphuric acid, II, 489; On the decomposition of the chlorides of alkali metals..... 820

VULTÉ, HERMANN T., and Harriet Winfield Gibson, 1; The nature and properties of corn oil, II; Determination of the constitution 1
VULTÉ, H. T., and Lily Logan. A comparison between the bromine and iodine absorption figures of various oils 156
Volumetric analysis, determination of phosphoric acid, 8; Preparation of normal and decinormal acid, 12; Method for preparing decinormal, etc., nitric and hydrochloric acids, 343; New indicator for determining total acidity of wines, 402; Determination of zinc, 468; Methods of standardizing acid solutions 727

WALKER, PERCY H. The volumetric determination of zinc 468
WARFEL, R. R. See Noyes, William A.
Water, determination of phosphates in potable, 96; Determination in blowpipe analysis, 213; Quantitative estimation in oils, fats and waxes 487
WELLS, H. L., and F. J. Metzger. On the separation of tungstic and silicic acids 356
WHEELER, HENRY L. On thioureaamidines, a correction, 223; On some addition reactions of this acid 443
WHEELER, H. J., and B. L. Hartwell. An apparatus for determining fat 338
WHEELER, HENRY L., and Henry F. Merriam. On the action of alkyl thiocyanates and alkyl isothiocyanates with thiol acids 283
WHITE, ALFRED H. The oxidation of nitrogen as a source of error in the estimation of hydrogen and methane 476
WHITNEY, W. R., and J. E. Ober. The precipitation of colloids by electrolytes 842
WIECHMANN, F. G. On methods of sugar analysis (note) 359
WILEY, H. W. The fourth international congress of applied chemistry 178
WILLIAMS, C. B. Kilgore's modification of the volumetric method of estimating phosphoric acid 8
Wines, new indicator for determining total acidity of 402
WITHERS, W. A., and G. S. Fraps. The rate of nitrification of some fertilizers 318
WOODMAN, A. G., and L. L. Cayvan. The determination of phosphates in potable waters 96

YORK, H. J. See Pond, F. J.
YOUNG, S. W. Studies on solutions of tin salts. I—Electrical conductivity of solutions of stannous chloride and hydrochloric acid, 21; II—The oxidation of solutions of stannous chloride by means of free oxygen, 119; An electrically heated and electrically controlled thermostat, 327; Studies on solutions of stannous salts, III 450
ZINC ethyl, action of, upon nitro and nitroso compounds 897
Zinc, volumetric determination of 468